

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Cancelled)
2. (Currently amended) ~~The isolated nucleic acid of the claim 1~~ An isolated nucleic acid encoding an insect cell serotonin transporter polypeptide, wherein the nucleic acid encodes a polypeptide comprising ~~a sequence selected from the group consisting of: SEQ ID NOS: 2, 4, 6, 8, 10, 12, and 16.~~
3. (Currently amended) ~~The isolated nucleic acid of claim 1~~ An isolated nucleic acid encoding an insect cell serotonin transporter polypeptide, wherein the nucleic acid comprises a ~~nucleotide sequence selected from the group consisting of: SEQ ID NOS: 1, 3, 5, 7, 9, 11, and 15.~~
4. (Cancelled)
5. (Currently amended) An isolated insect cell ~~membrane~~ serotonin transporter polypeptide ~~of claim 4, wherein the polypeptide comprises an amino acid sequence selected from the group consisting of: SEQ ID NO: 2, 4, 6, 8, 10, 12, and 16.~~
6. (Withdrawn) A method of screening for a compound which modulates activity of an insect cell membrane transporter, the method comprising the steps of:
 - a) contacting a recombinant cell with a test compound, wherein the recombinant cell comprises a recombinant nucleic acid expressing the insect cell membrane transporter, and

b) determining the ability of the test compound to modulate activity of the insect cell membrane transporter, and

wherein said nucleic acid encoding the cell membrane transporter is selected from the group consisting of: SEQ ID NOS: 1, 3, 5, 7, 9, 11, and 15 and nucleic acids encoding the amino acid sequence of SEQ ID NOS: 2, 4, 6, 8, 10, 12, and 16.

7. (Withdrawn) The method of claim 6, wherein the cell is selected from the group consisting of: an insect cell, a mammalian cell, and a yeast cell.

8. (Withdrawn) A compound identified by the method of claim 6, wherein the compound modulates activity of an insect cell membrane transporter.

9. (Withdrawn) A method of screening for a compound which binds to an insect cell membrane transporter, the method comprising the steps of:

a) attaching an insect cell membrane transporter polypeptide to a solid surface; wherein the cell membrane transporter polypeptide is selected from the group consisting of: SEQ ID NOS: 2, 4, 6, 8, 10, 12, and 16; and

b) exposing the polypeptide to a test compound or a library of test compounds; and

c) determining the ability of the test compound or library of test compounds to bind to the cell membrane transporter.

10. (Withdrawn) A compound identified by the method of claim 9.

11. (Currently amended) A cell comprising a recombinant nucleic acid encoding an insect cell membrane serotonin transporter polypeptide, ~~the polypeptide having greater than 70% amino acid sequence identity to a polypeptide comprising a sequence selected from the group consisting of: SEQ ID NOS: 2, 4, 6, 8, 10, 12, and 16.~~

12. (Currently amended) The cell of claim 11, wherein the cell is ~~selected from the group consisting of: an insect cell, a mammalian CV-1 cell, and a yeast cell.~~